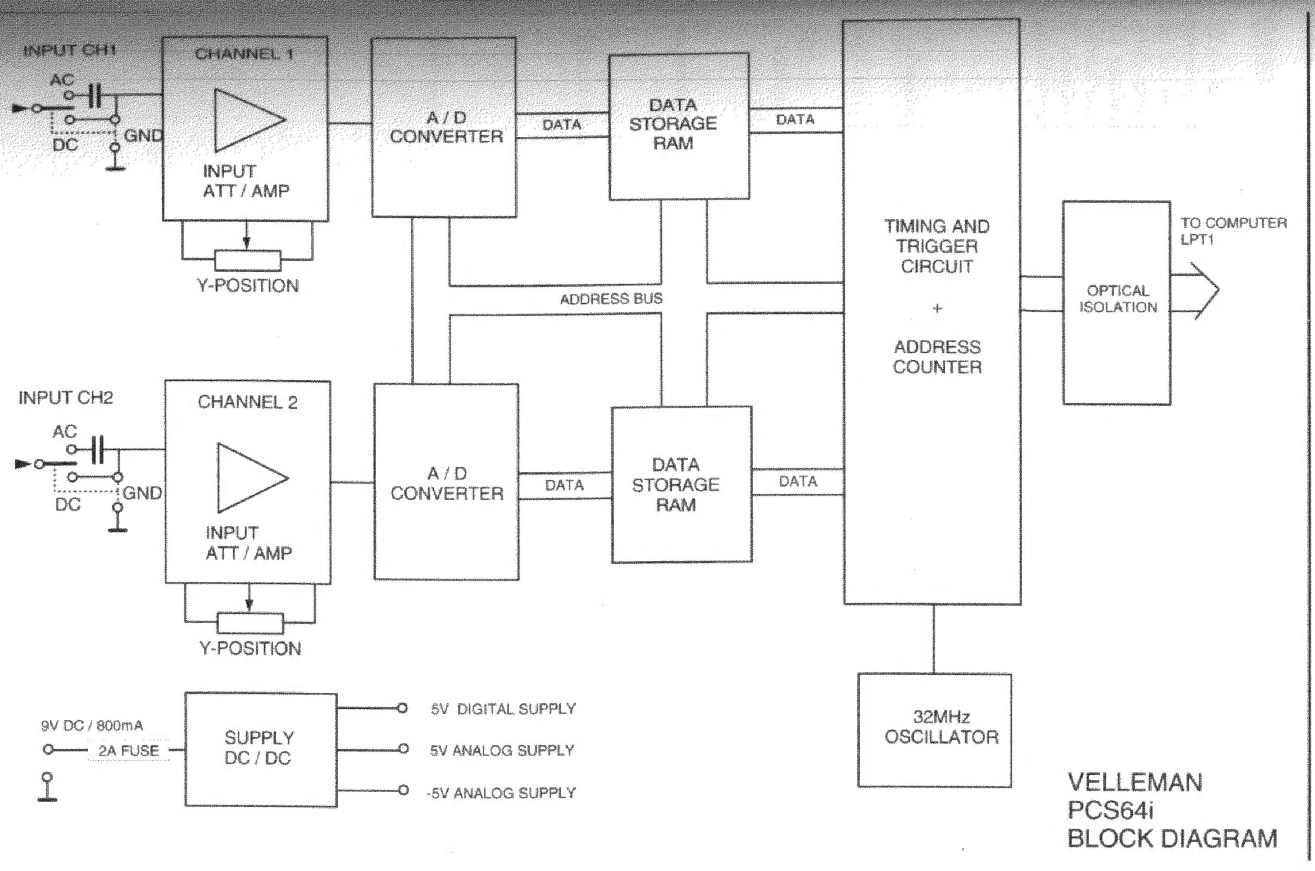

INPUT CH1
AC
DC
GND
CHANNEL 1
INPUT
ATT / AMP
Y-POSITION
A / D
CONVERTER
DATA
DATA
STORAGE
RAM
DATA
TIMING AND
TRIGGER
CIRCUIT
+
ADDRESS
COUNTER
ADDRESS BUS
OPTICAL
ISOLATION
TO COMPUTER
LPT1
INPUT CH2
AC
DC
GND
CHANNEL 2
INPUT
ATT / AMP
Y-POSITION
A / D
CONVERTER
DATA
DATA
STORAGE
RAM
DATA
32MHz
OSCILLATOR
9V DC / 800mA
2A FUSE
SUPPLY
DC / DC
5V DIGITAL SUPPLY
5V ANALOG SUPPLY
-5V ANALOG SUPPLY
VELLEMAN
PCS64i
BLOCK DIAGRAM

Technical data

General

- Two separate channels
- Input impedance: 1 MOhm/30pF
- Input bandwidth: 13MHz
- Maximum input voltage: 100V (AC + DC)
- Maximum readout error: 2.5%
- Input coupling: DC, AC and GND
- Vertical resolution: 8 bit
- Real time sampling frequency: 32MHz (max.)
- Oversampling: 64MHz (only in Windows)
- Memory: 4Kb/channel
- Supply voltage: 9 - 10VDC / 800mA
- Charger circuit for rechargeable batteries: 90mA
- Dimensions: 225 x 165 x 40mm

Minimum system requirements

- IBM compatible PC
- Windows 95 or 3.11 or MS_DOS
- VGA display card (min. 800x600 for Windows)
- Mouse
- Free printer port LPT1
- 480Kb free conventional memory (Dos software)
- Arithmetic coprocessor needed for RMS readout and spectrum analyzer

Optional accessories

- Battery pack: BP9
- Oscilloscope probes (2x): PROBE60S (isolated)
- Carry case: BAG21X19

Oscilloscope

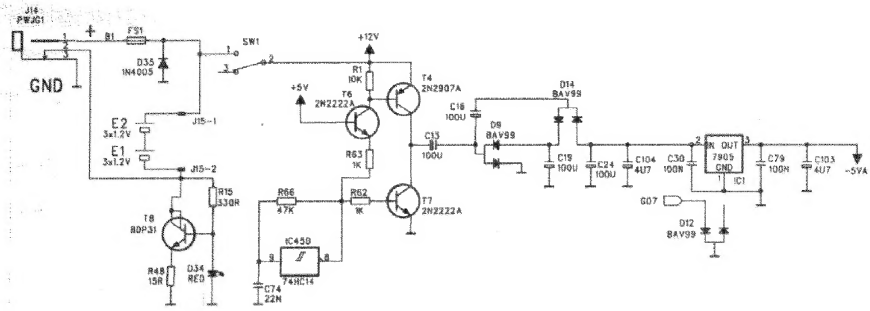
- Timebase: 100ns to 100ms per division
- Trigger source: CH1, CH2 or free run
- Trigger edge: rising or falling
- Trigger level: adjustable in steps of ½ division
- Step interpolation: linear or smoothed
- Markers for voltage and frequency
- Input sensitivity: 10mV to 5V/division
- Pre-trigger function (not in 64MHz mode)
- True RMS readout (only AC component)

Spectrum analyzer

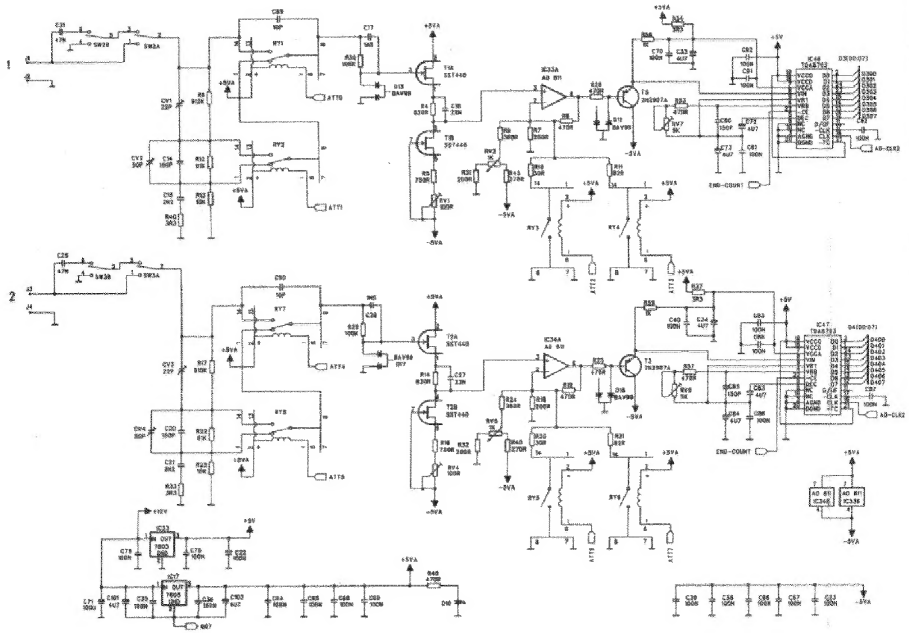
- Frequency range: 0 .. 800Hz to 16MHz
- Linear or logarithmic timescale
- Operating principle: FFT (Fast Fourier Transform)
- FFT resolution: 2048 lines
- FFT input channel: CH1 or CH2
- Zoom function
- Markers for amplitude and frequency

Transient recorder

- Timescale: 20ms/Div to 2000s/Div
- Max record time: 9.4hour/screen
- Automatic storage of data
- Automatic recording for more than 1 year
- Max. number of samples: 500/s
- Min. number of samples: 1 sample/20s
- Markers for time and amplitude
- Zoom function
- Record and display of screens
- Data format: ASCII

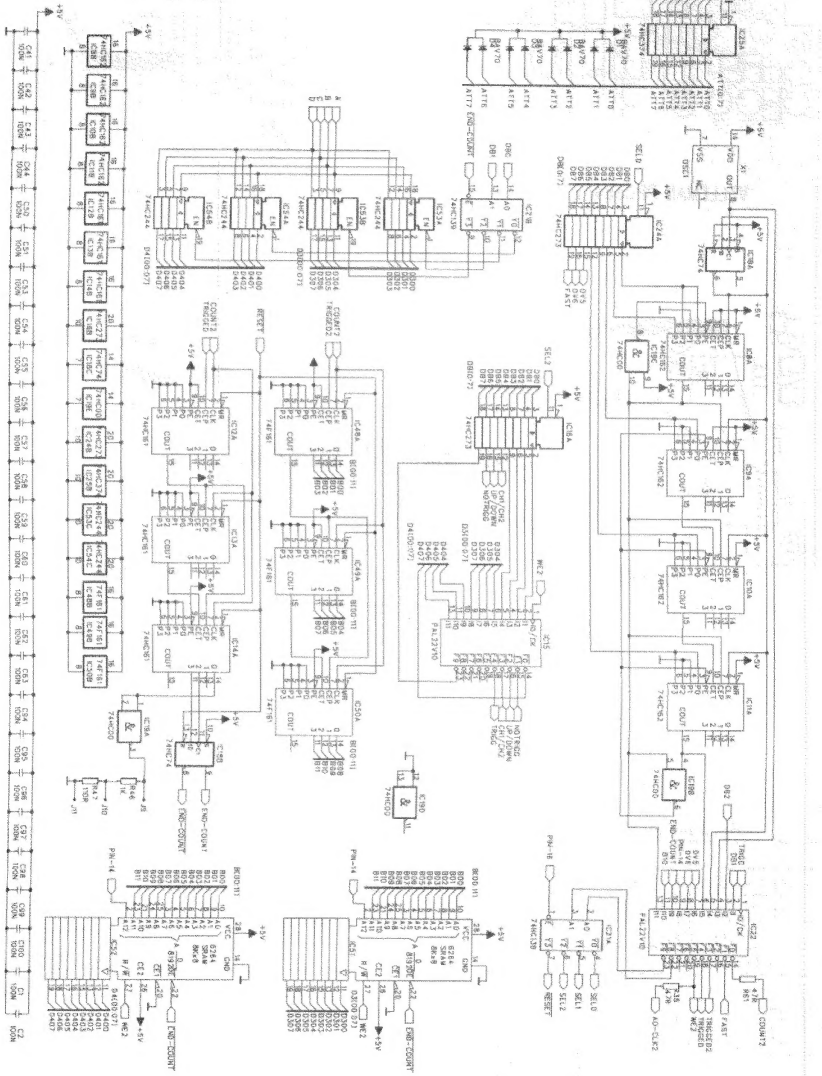


POWER SUPPLY



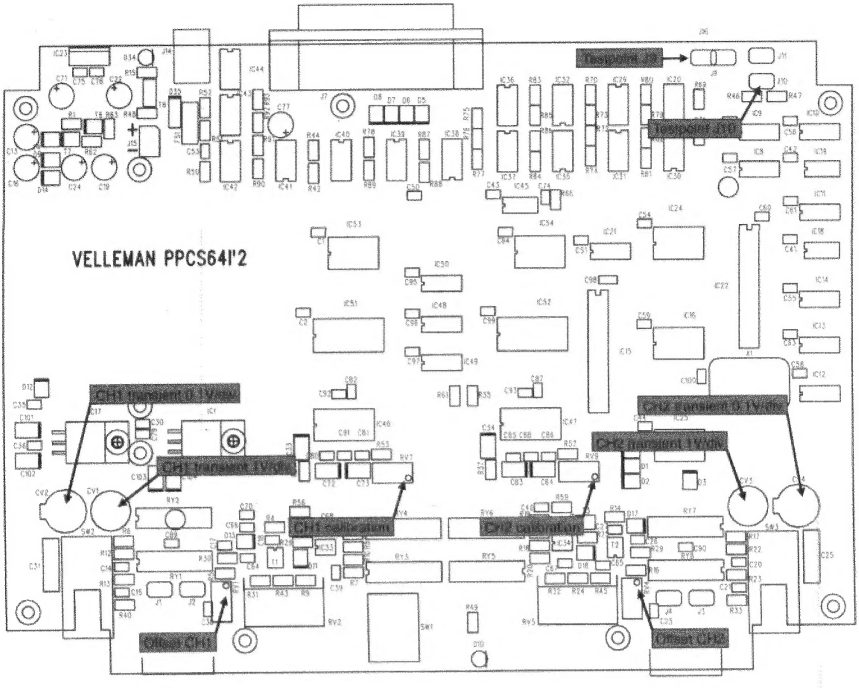
INPUT CIRCUIT

All values are for reference only



DIGITAL CIRCUIT

All values are for reference only



SERVICE INFO

Adjustment	Signal setting	Adjust
CH1 transient 0.1V/DIV	Set at 0.1V/DIV & test signal J10	CV2
CH1 transient 1V/DIV	Set at 1V/DIV & test signal J9	CV1
CH1 offset	Switch between 1V & 5V/DIV	Adjust RV1 for stable signal
CH1 callibration	/	RV7 for correct readout
CH2 transient 0.1V/DIV	Set at 0.1V/DIV & test signal J10	CV4
CH2 transient 1V/DIV	Set at 1V/DIV & test signal J9	CV3
CH2 offset	Switch between 1V & 5V/DIV	Adjust RV4 for stable signal
CH2 callibration	/	RV9 for correct readout